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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,164	07/25/2001	Gundu M. Sabde	500163.05	9145

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DORSEY & WHITNEY LLP
INTELLECTUAL PROPERTY DEPARTMENT
SUITE 3400
1420 FIFTH AVENUE
SEATTLE, WA 98101

EXAMINER

MACARTHUR, SYLVIA

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,164

Applicant(s)

SABDE ET AL.

Examiner

Sylvia R MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 60 and 61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 60 and 61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Point of clarification

1. *The examiner thanks Mr. Arterberry for the examiner-initiated telephonic interview, but upon further search and consideration it was found that the case is not in condition for allowance. Thus the examiner will not introduce an examiner's amendment to the case.*

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.'

3. Claim 60 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The means and bounds of the range are unclear. Is applicant claiming, "at least 4cP, "at least 100cP, between 4-100 cP or less than 4 up to more than 100 cp"?

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 61 is rejected under 35 U.S.C. 102(b) as being anticipated by Robinson et al (US 6,124,207).

Robinson teaches slurries for mechanical or chemical mechanical planarization and the method/apparatus for making such slurries.

Robinson teaches a support table 14, a polishing pad 40 on the support table having a body (top-panel 16). The fixed abrasive pad has abrasive particles bonded to a suspension material on the pad see col.2 lines 3-5. A carrier assembly 30 has a substrate holder 32 (carrier head) and a drive assembly 35. Robinson further cites that the planarizing solution is a clean solution without abrasive particles.

Robinson further teaches a slurry manufacturing assembly 200 including a first supply container 210, a second supply container 220, and a mixing tank 240 (mixing site). The first and second solutions are mixed together in the mixing tank to form a slurry that is coupled to the nozzles 33 of the planarizing machine, see Fig. 2.

Regarding the supply of non-abrasive solution and lubricant additives, the apparatus of Robinson is inherently capable of providing such supplies. Additionally, the type of supply provided is a matter of intended use.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson et al (US 6,124,207) in view of Yianakopoulos (US 5,554,320).

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Robinson teaches slurries for mechanical or chemical mechanical planarization and the method/apparatus for making such slurries.

Robinson teaches a support table 14, a polishing pad 40 on the support table having a body (top-panel 16). The fixed abrasive pad has abrasive particles bonded to a suspension material on the pad see col.2 lines 3-5. A carrier assembly 30 has a substrate holder 32 (carrier head) and a drive assembly 35. Robinson further cites that the planarizing solution is a clean solution without abrasive particles.

Robinson fails to teach the viscosity of the planarizing solution.

Yianakopoulos teaches a liquid cleaning composition, comprising water as the non-abrasive planarizing solution and polymeric plastic materials such as polyvinyl alcohol as a thickener, see col. 15 lines 19-32.

The motivation to provide the cleaning composition of Yianakopoulos in the planarizing apparatus of Robinson that it is stable at a range of temperatures and it is easily pourable in that it is within a viscosity range of 1-200 cP:

Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention provide the cleaning composition of Yianakopoulos in the planarizing apparatus of Robinson.


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R MacArthur whose telephone number is 703-306-5690. The examiner can normally be reached on M-F during the core hours of 8 a.m. and 2 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Mills can be reached on 703-308-1633. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Sylvia R MacArthur
Patent Examiner
Art Unit 1763

November 21, 2003